<u>Abstract</u>

An optical arrangement, in particular a microlithographic projection printing installation, has in particular a slot5 shaped image field or rotationally non-symmetrical illumination. An optical element (5) is therefore acted upon in a rotationally non-symmetrical manner by the radiation of a light source. To temper the optical element (5), a supply apparatus (11, 19 to 23) for gas is used.

- 10 The latter comprises at least one supply line (21) and at least one gas directing device (11). The latter is aligned relative to the optical element (5) and controllable in such a way that the gas is directed by the gas directing device (11) towards the optical element (5). The
- volumetric flow of the exiting gas therefore has a magnitude and spatial distribution (17), which are adapted to the intensity distribution (6) of the radiation. By virtue of such tempering, rotationally non-symmetrical light-induced image defects in the optical element (5) are avoided or compensated.

(Figure 2)